

Research Project Proposal Outline^[1]

1. Project Title

The title should be short but descriptive enough so that anyone reading it would know what to expect.

2. Introduction

The Introduction supplies sufficient background information to allow the reader to understand and evaluate the proposal of your work without needing to refer to previous publications on the topic. Choose references carefully to provide the most important background information. The following questions should be addressed in this section:

- What is the general technical/application area in which you will be working? Reference should be made to any standards or de facto theories in the area.
- What is the general problem that you are trying to solve, and how did the problem arise? Provide proof that this is indeed a problem by using references. This should lead to the more detailed problem statement in the next section.
- Why is its solution interesting or worthwhile? What benefits would there be to solving this problem? What value would it have to the specific research community, the industry, society, or the world?
- What will be the contribution or significance of your research if it is successful? How will it contribute to the existing body of knowledge in this field? Why should anyone be interested in your research?

3. Review of Literature

In this section you should show where in current literature the problem was first recognized as well as what serves as the foundation for your research proposal.

The more references you can find that relate to the given problem statement, the more credibility it will have. This will give the reader an idea whether you have done your "homework" and know enough about the topic to start with the research project. A basic understanding of the field is required. Any fundamental theories relating to your research proposal should also be stated, for example, if your research topic is project management, reference should be made to current standards, best practices and any de facto documents.

[1]The original version of this document can be found at <http://www.uj.ac.za/EN/Faculties/management/departments/bit/research/Documents/Masters%20Research%20Proposal.This%20Template.pdf>

4. Project Description

This part of your proposal may include the following:

a. Problem statement

What is the problem for which a solution is being sought? It is very important that a real-world problem must exist for which there is currently no effective solution. It should be an academic problem, i.e. one that requires academic research to be performed. Industry problems seldom make good academic research problems. Trying to solve a problem a specific organization is experiencing has too narrow focus. The problem should be wide enough to apply to a whole industry. The project goal would be to solve the problem.

If possible, refer to other research that have been done in this area. The solution must have both academic, social and practical value. End this section of with a single statement that is the problem statement. Make this statement bold so that it stands out.

b. Project scope

A scope statement is a paragraph used to develop and confirm a common understanding of the project scope. It should include:

- i. Research project justification – Why are you doing it?
- ii. Brief description of the research project's products – What will the research deliver, for example a model, framework, method, prototype?
- iii. Summary of all project outputs (by-products) – Apart from the product as mentioned above, what else will be delivered by the research?
- iv. Statement of what determines project success – How do you know the research was successful? What will you use as a measure?
- v. Exclusions – is there anything that is explicitly excluded from the project, i.e. that you will not look at or take into consideration?
- vi. Assumptions – Do you start the research project using any assumptions due to a lack of facts?

c. Project objectives

The project scope statement is broken down into several project objectives that each relate to the project scope. If all the objectives have been met then the research would have been successful. The objectives will also help you identify the chapter framework as each objective will be addressed

by at least one chapter. It is important to keep in mind that an objective must be measurable. It is therefore necessary that show how you will measure whether an objective has been met or not.

d. Research approach

The approach refers to the research method that you will use. This has to be a formal, scientifically recognized method. The questions that should be answered in this section are:

- How will you accomplish your objective? What will you do? Will you follow a quantitative or qualitative approach? Will be using action research, phenomenology, grounded theory or another methodology? etc.
- Give a brief summary of what this method entails (the process or steps) and motivate why it is suitable to your research problem?
- What equipment or other resources will you need?
- Which of these are inherited, and which will you have to make or procure?
- With what other people or groups will you be collaborating, e.g. professional bodies, companies, other universities, other departments in the same university?

e. Project deliverables

What do you aim to deliver at the end of the project? Describe all documents, for example a dissertation, thesis, articles, conference presentations, prototypes, programs, that you intend to hand in.

5. Limitations or constraints

Document the limitations that could prevent you from successfully completing this project, for example a lack of reference material or limited access to required resources. Another constraint might be the amount time you have available to do research.

6. List of references / sources

A List of resources and links you will use and why they will benefit your research. List all pertinent papers or reports that you have consulted to prepare your proposal. Also list all relevant standards or de facto documents for the field you are going to do research in. Are there any ISO, BS or SABS standards? It is suggested that you use the Harvard referencing technique as you will have to use it for the rest of your research project.

7. Layout (optional)

This section should give a brief outline and short description of the chapters of the dissertation/thesis. Each chapter should be linked to a research objective.

The following structure might be used:

- Chapter 1 – Introduction (based on the content of this proposal)
- Chapter 2 – Background / Overview (summary of literature review)
- Chapter 3 – Research methodology (explanation and motivation of research method to be used)
- Chapters [n] – The body of the research
- Chapter [last chapter] – Conclusion & Future work (Show how the objectives were achieved, and what the next steps will be)
- For each chapter, a brief description should be given to explain the intended content.

8. Project plan (optional)

This part of your proposal should contain a breakdown of what you intend to do to achieve your project objectives and milestones. Making a schedule of the principal activities and events is a good way of showing the readers that you are taking a systematic approach to planning your work. You need to take into consideration times that you will not be able to work on your research, for example holidays or other commitments. The project plan should also include activities such as proof reading of your final document, writing articles and putting the whole document together.